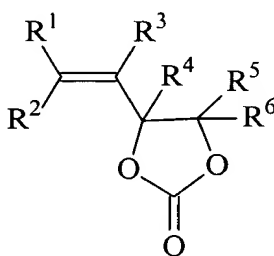


IN THE CLAIMS

The status of each claim of the present application is listed below.

1. (Previously Presented) A non-aqueous electrolyte secondary battery comprising a negative electrode, a positive electrode and an electrolyte having a lithium salt dissolved in a non-aqueous solvent, wherein said non-aqueous solvent comprises a vinylene carbonate compound represented by the following formula (I) in an amount of from 0.01% to 20% by weight:



wherein R¹, R², R³, R⁴, R⁵ and R⁶ each independently represent a hydrogen atom or an alkyl group having 1 to 4 carbon atoms.

2. (Previously Presented) The non-aqueous electrolyte secondary battery according to Claim 1, wherein said negative electrode comprises a carbon-based material capable of absorbing and releasing lithium.

3. (Original) The non-aqueous electrolyte secondary battery according to Claim 2, wherein said carbon-based material capable of absorbing and releasing lithium comprises a carbon-based material having a d value of from 0.335 to 0.34 nm on lattice plane (002 plane) as determined by X-ray diffractometry.

4. (Currently Amended) The non-aqueous electrolyte secondary battery according to Claim 1, wherein said non-aqueous solvent is a mixed solvent comprising

(a) a cyclic carbonate selected from the group consisting of alkylene carbonates, with the exception of the vinylethylene carbonate compound of the formula (I), in an amount of not less than 20 vol-%, wherein the alkylene group of the alkylene carbonate has 2-4 carbon atoms; and

(b) a chain carbonate selected from the group consisting of dialkyl carbonates in an amount of not less than 20 vol-%, wherein each alkyl group of the dialkyl carbonate has 1 to 4 carbon atoms,

wherein the total amount of (a) and (b) is not less than 70 vol-% based on the total volume of the solvent

~~having an alkylene group moiety of from 2 to 4 carbon atoms and a chain carbonate selected from the group consisting of dialkyl carbonates having an alkyl group moiety of from 1 to 4 carbon atoms, wherein the vinylethylene carbonate compound of formula (I) is present in an amount of not less than 20 vol-%, and wherein said cyclic and chain carbonates are present in an amount of not less than 70 vol-% based on the total solvent amount.~~

5. (Currently Amended) The non-aqueous electrolyte secondary battery according to Claim 1, wherein said non-aqueous solvent further ~~except the vinylethylene carbonate compound of the formula (I)~~ comprises one or more solvents having a relative dielectric constant of not less than 25 and wherein said non-aqueous solvent has a flash point of not lower than 70°C.

6. (Currently Amended) The non-aqueous electrolyte secondary battery according to Claim 1, wherein said non-aqueous solvent further comprises one or more solvents having

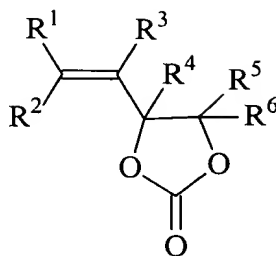
~~except the vinyl ethylene carbonate compound of the formula (I)~~ has a relative dielectric constant of not less than 25.

7. (Previously Presented) The non-aqueous electrolyte secondary battery according to Claim 5, wherein said solvent having a relative dielectric constant of not less than 25 is selected from the group consisting of ethylene carbonate, propylene carbonate, butylene carbonate, γ -butyrolactone and γ -valerolactone.

8. (Previously Presented) The non-aqueous electrolyte secondary battery according to Claim 5, wherein said solvents having a relative dielectric constant of not less than 25 is a mixture of ethylene carbonate and γ -butyrolactone.

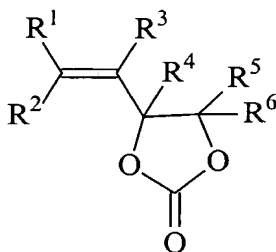
9. (Previously Presented) The non-aqueous electrolyte secondary battery according to Claim 1, wherein the lithium salt is at least one salt selected from the group consisting of LiClO_4 , LiPF_6 , LiBF_4 , LiCF_3SO_3 , $\text{LiN}(\text{CF}_3\text{SO}_2)_2$, $\text{LiN}(\text{CF}_3\text{CF}_2\text{SO}_2)_2$, $\text{LiN}(\text{CF}_3\text{SO}_2)(\text{C}_4\text{F}_9\text{SO}_2)$ and $\text{LiC}(\text{CF}_3\text{SO}_2)_3$.

10. (Previously Presented) A non-aqueous electrolyte for a non-aqueous electrolyte secondary battery comprising at least a negative electrode and a positive electrode capable of absorbing/releasing lithium, said non-aqueous electrolyte comprising a solute and a non-aqueous solvent, wherein said non-aqueous solvent comprises a vinyl ethylene carbonate compound represented by formula (I) in an amount of from 0.01 to 20% by weight:



wherein R^1 , R^2 , R^3 , R^4 , R^5 and R^6 each independently represent a hydrogen atom or an alkyl group having 1 to 4 carbon atoms.

11. (Currently Amended) A non-aqueous electrolyte for a non-aqueous electrolyte secondary battery comprising at least a negative electrode and a positive electrode capable of absorbing/releasing lithium, said non-aqueous electrolyte comprising a solute and a non-aqueous solvent, wherein said non-aqueous solvent comprises one or more solvents wherein said one or more solvents have a relative dielectric constant of not less than 25, is present in an amount of not less than 90% by weight, exhibits a flash point of not lower than 70°C and comprises at least one vinylene carbonate represented by formula (I) in an amount of from 0.01% to 20% by weight:



wherein R^1 , R^2 , R^3 , R^4 , R^5 and R^6 each independently represent a hydrogen atom or an alkyl group having 1 to 4 carbon atoms.

12. (Previously Presented) The non-aqueous electrolyte secondary battery according to Claim 6, wherein said solvent having a relative dielectric constant of not less than 25 is selected from the group consisting of ethylene carbonate, propylene carbonate, butylene carbonate, γ -butyrolactone and γ -valerolactone.

13. (Previously Presented) The non-aqueous electrolyte secondary battery according to Claim 6, wherein said solvent having a relative dielectric constant of not less than 25 is a mixture of ethylene carbonate and γ -butyrolactone.

14. (New) The non-aqueous electrolyte secondary battery according to Claim 1, wherein the solvent contains from 0.01 to 10% by weight of the vinylethylene carbonate compound represented by formula (I).

15. (New) The non-aqueous electrolyte secondary battery according to Claim 1, wherein the solvent contains from 0.1 to 5% by weight of the vinylethylene carbonate compound represented by formula (I).

16. (New) The non-aqueous electrolyte according to Claim 10, wherein said non-aqueous solvent is a mixed solvent comprising

(a) a cyclic carbonate selected from the group consisting of alkylene carbonates with the exception of the vinylethylene carbonate compound of the formula (I) in an amount of not less than 20 vol-%, wherein the alkylene group of the alkylene carbonate has 2-4 carbon atoms; and

(b) a chain carbonate selected from the group consisting of dialkyl carbonates in an amount of not less than 20 vol-%, wherein each alkyl group of the dialkyl carbonate has 1 to 4 carbon atoms,

wherein the total amount of (a) and (b) is not less than 70 vol-% based on the total volume of the solvent.

17. (New) The non-aqueous electrolyte according to Claim 10, wherein said non-aqueous solvent further comprises one or more solvents having a relative dielectric constant of not less than 25.

18. (New) The non-aqueous electrolyte according to Claim 10, wherein the solvent contains from 0.01 to 10% by weight of the vinylethylene carbonate compound represented by formula (I).

19. (New) The non-aqueous electrolyte according to Claim 10, wherein the solvent contains from 0.1 to 5% by weight of the vinylethylene carbonate compound represented by formula (I).

SUPPORT FOR THE AMENDMENTS

Claims 4-6 have been amended for clarity. Claim 11 has been amended to specify the amount of the vinylethylene carbonate represented by formula (I). That amendment and newly-added Claims 14-19 are supported by the specification at pages 5-28. No new matter is believed to have been added to the present application by the amendment submitted above.